

REMARKS

Reconsideration of the Final Office Action of September 22, 2006 and entry of the claim amendments for the purpose of placing the application in immediate condition for allowance or in better form for appeal is respectfully requested.

To summarize the claim changes made herein:

A) The subject matter of claim 12 (12/1) has been included into claim 1 such that claim 1 represents a rewriting of claim 12 in independent format and claim 12 has been cancelled. Claim 3 was canceled and the dependency of claim 4 was changed to be in accord with the revised claim 1.

B) Claim 8, which was noted as containing allowable subject matter in the Office Action, has been rewritten into independent claim format.

C) Claim 11 (11/5/1), which was noted as containing allowable subject matter in the Office Action, has been rewritten into independent claim format.

D) Dependent claim 22 has been canceled and claims 25 and 30 have been amended to accommodate the inclusion of compression means in claim 1 based upon claim 1 being written in the form of an independent claim 12 as originally presented.

E) Claim 35 has been amended to read as dependent claim 38, with claims 36 to 38 canceled in view of that change.

F) Withdrawn claim 45 has been amended to read as dependent claim 47, with claims 46 and 47 canceled.

In the Office Action claims 1-34, 39 and 56-60 were rejected under 35 USC 112, second paragraph, on the basis of being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reference was

made to claim 1 and there was indicated that it was not considered clear what adjustment of the reception chamber was prevented by the locking means. Claim 1 has been amended to include the subject matter of dependent claim 12. A review of the currently amended claim 1 reveals that there is included a compression means for compressing the fluid reception chamber in a compression direction extending toward the discharge end of the reception chamber. There is further indicated that the locking means precludes a pull back in the reception chamber in an axial direction opposite the compression direction upon a binding of said rod with the reception chamber. It is respectfully submitted that the current claim 1 clearly conveys what adjustment of the reception chamber is prevented by the locking means such that claim 1 is in full compliance with 35 USC 112, second paragraph.

Also, in the rejection of the claims under 35 USC 112, second paragraph, reference is made to certain claims being considered indefinite based on phrases involving “stick” or “sticking” in claims 22 and 39. In the present Amendment claim 22 has been canceled and claim 39 has been amended to no longer include the claim phrase deemed objectionable. Accordingly, withdrawal of the rejection under 35 USC 112, second paragraph is respectfully requested.

The Office Action further includes a rejection under 35 USC 102(b) directed at claims 1-5, 12, 20, 21, 23-30, 34, 35, 40-42, 56-58 and 60-62 as presented in the previous response based on Bertram ‘905. As current claim 1 represents claim 12 rewritten in independent fashion and claim 12 is included in the above rejected claim set, the discussion below focuses on the rejection of claim 12 in the prior Office Action.

To better appreciate the advantages provided by the claim 1 invention, reference is made to pages 14 to 17 of the present application which describes the problems associated with the prior art (such as Bertram ‘905) and how the claimed present invention addresses these problems. As described therein these problems include the problem of feed port misalignment which is considered to occur due to the potential for the fluid reception chamber to adjust relative to a compression means upon, for example, a temporary sticking of the rod relative to the fluid reception chamber receiving that rod. As an illustration, with reference to the prior art (including Bertram ‘905), the inventors of the present application consider that there occurs slight movements in the fluid reception chamber against the bias of the compression means at a time when there is a sticking relationship between the rod and the fluid reception chamber and the rod is retracted by a motorized driving means or the like. This movement, even if minute, can lead to feed port misalignment which can further lead

(particularly after repeated occurrences) to a variety of problems depending on the environment of usage such as partial or full blockage of porting (e.g., with a first and second port environment there can be altered a desired ratio of material input leading to a lessening of a desired two chemical mix ratio). A misalignment such as that described above can also lead to a flow of material in undesired areas which can lead to additional problems such as contamination (e.g., intermixing of material when a two chemical mixing system is involved) or binding of other components, etc.

The locking means of claim 1 is directed at helping avoid the above noted problems such as avoiding movement of the fluid reception chamber upon a binding or sticking of the rod with the fluid reception chamber. For example, even in the prior art examples using non-stick material such as Teflon material, there can arise a sticking arrangement as through, for example, a chemical bonding and/or significant rod misalignment within the rod passageway, which can cause a combined movement of the fluid reception chamber and then the washer stack pushing the mixing chamber in the opposite direction upon the rod seeking to move back in its reciprocation cycle.

Claim 1 has been amended to further bring out the solution to this problem presented by the present invention which problem is not appreciated in Bertram '905 (or the other cited references) and thus is not in any way taught by these references. For instance, Bertram '905 is merely illustrative of the state of the art prior to the present invention wherein the cold flow block is moved forward by the stack of washers, but there is lacking means to preclude position adjustment upon a binding of the rod and chamber coming into existence.

In the Office Action reliance is placed on the port setting ring 63 as a teaching of the locking means of the present invention. Also, in the "Response to Arguments" portion of the Final Office Action, there is indicated that there is no mention made in the specification that the reception chamber is adjustable. As to this latter point, reference is made to the numbered paragraphs 2 to 5 appearing on pages 14 and 15 of the present application which describe the potential movement or adjustment of the chamber, with such movement being considered made possible due to the nature of the compression device and which movement, even if minute, potentially over time can create a great deal of dispenser system degradation.

There is further indicated in "Response to Arguments" that the setting ring 63 in Bertram '905 "locks and prevents the block from moving in any direction". This assertion is respectfully traversed, as well, for the reasons set forth below.

The chemical flow through port 55 shown in Bertram '905 is of a suitable material for chemical flow such as a stainless steel port, and the ring 63 is metal designed to maintain radial positioning of the port relative to the rod (while at the same time providing free, normal movement of the reciprocating rod). Thus the ring 63 is in a metal-to-metal contact relationship with the port 55 over a relatively small surface contact area. The Bellville washers 26 are set forth in the Office Action as representing the compression means of the claimed invention. It is submitted that one of ordinary skill in the art would understand that the level of force relative to the stack of Bellville washers used to bias the cold flow material forward would be at a greater level than the metal-to-metal friction level associated with the radial positioning locking ring 63 and port 53. This is particularly evident when considering that it would be understood by one of skill in the art that a relatively high level of compression force is required to achieve the desired level of cold flow block compression which is achieved by the washer stack in Bertram '905, (e.g., a force of 180 lbs is achieved with the washer stack of the disclosed invention). Thus, in the Bertram '905 reference, upon the rod binding, the metal-to-metal relationship does not function to preclude a pull back in the fluid reception chamber in an axial direction opposite the compression of the washers as the level required to initiate movement in the compression washer stack 26 would have already surpassed any metal-to-metal friction resistance generated by ring 63. Therefore the ring 63 cannot be said to represent a locking means to preclude pull back of the reception chamber being biased forward by compression means as the bound rod would be free of any locking relationship with the ring 63 by the time it reached a level that could counteract the compression stack's forward biasing force. Accordingly, it is respectfully submitted that claim 1 and its dependents is not anticipated or rendered obvious by Bertram '905.

As noted above, independent claims 8 and 11 represent allowable subject matter/objected to claims that have been rewritten in independent fashion and, for the reason set out above, are respectfully submitted to be in condition for allowance as the presently stand.

Also, for the reasons set out above, it is submitted that withdrawn claim 35 can also be deemed ready for immediate allowance.

In the Office Action, claims 31- 33, 36-38, 44 and 59 were rejected as being considered obvious based on Bertram '905 and Brown '596. In the present Amendment, independent claim 35 is rewritten so as to be in the form of dependent claim 38 in the last response (38/37/36/35 –with repetitive material removed). As claim 38 is listed above as part

of the obviousness rejected claim set, the discussion below focuses on claim 38 relative to the applied obviousness rejection.

In the Office Action it is asserted that it would have been obvious to replace the Bertram front and rear end with threaded closures on the basis of the mixing module threaded clamp down arrangement shown in Brown. In response to the arguments raised in the last rejection about the non-obviousness of making the perforated solvent plug at the end of the Bertram '905 into a threaded plug, there is indicated in the Office Action that some porous material can be threaded porous material. For the reasons set out below the obviousness rejection raised against prior claim 38 and current claim 35 is respectfully traversed.

Amended claim 35 currently refers to an assembly having an arrangement which includes threaded front and rear closure caps used in association with a rod, cold flow reception chamber, and compression device, and with the front cap being hand removable in tool-less fashion and wherein the threaded rear end has a tool engagement means.

It is first noted that the relatively high compression force noted above is applicable to the front end of the dispenser, which in the Bertram '905 reference involved usage of a swaged housing end to hold in the porous body. This swaged housing end took into consideration the internal axial forces generated by the compression device pushing the cold flow block into that swaged end. This arrangement is considered prone to failure. Also, for the porous material involved with achieving an air mix/solvent flow in Bertram '905 there is considered to be relied on a material that is like a fine screen mesh (based on a sample review for a device like that illustrated in the below described instruction sheet shown in Attachment A) and which is submitted to fall within the category of not being deemed suited for porous body threading. In this regard reference is made to the US Patent No. 5,950,875 to the same Assignee as Bertram '905 which shows in Figures 3 and 10 an arrangement where the porous body is received (in an unthreaded manner) within a plastic external ring with exterior threading for securement to the housing, while a flanged end hat shaped insertion is used for cold flow body retention at one end and a c-clip is used to hold the other end. As an added illustration of the Figure 10 arrangement, Attachment A is provided, which is an instruction sheet for the mixing block similar to that shown in Figure 3 and 10 of the '875 patent, showing the special tool used at one end to remove the plastic ring with porous insert and the c-clip used at the opposite end to hold the compression device compressed.

Use of a non-threaded c-clip in the prior art embodiment is beneficial when, like in the prior art, there commonly occurs leakage of chemical in and around the dispensing device


which, in some embodiments can render removal difficult (e.g., chemical fused threaded closure cap). The present invention, on the other hand, is of a design involving a tool less, hand releasable front closure cap as there is a comfort level of chemical leakage avoidance and the arrangement is such that despite the high compression levels involved, there is provided the ability to use a hand removable, threaded tool-less front closure cap and a rear tool use threaded rear closure cap. This arrangement is not seen in the prior art and the arrangement in Brown, directed at holding the entire mixing module down, is respectfully submitted not to be applicable to the different relatively high internal compression environment introduced by the use of the Bellville washer stack in Bertram '905.

In view of the foregoing it is respectfully submitted that all claims are allowable and that the application stands in condition for allowance. Favorable reconsideration at the Examiner's earliest convenience is thus respectfully requested.

If for any reason any fee is deemed required relative to this filing, authorization is given to charge deposit account no. 02-4300 for such fee.

Respectfully submitted,
SMITH, GAMBRELL & RUSSELL, LLP

By: _____


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Date: January 22, 2007

SpeedyPacker™ Mixing Block Maintenance Procedure

Safety:

- ⚠ Do not operate any Instapak® system before reading the "Recommendations for Safe Use and Handling of Instapak® Foam-in-Place Chemicals."
- ⚠ Always wear Safety Glasses and Protective Gloves when servicing all Instapak® equipment.

Chemical Components:

- "A" Chemical associated system components, color coded Red, is polymeric Isocyanate (crude MDI).
- "B" Chemical associated system components, color coded Blue, is polyol resin.

For Chemical Emergency:

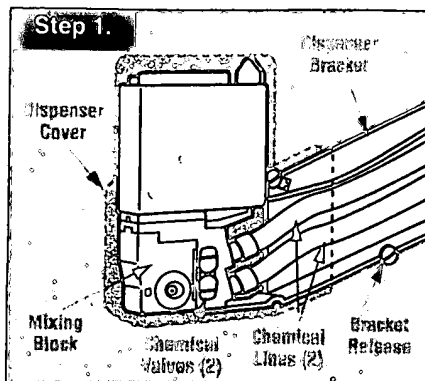
Spill, Leak, Fire, or Accident Call
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What to do in case of accidental contact:

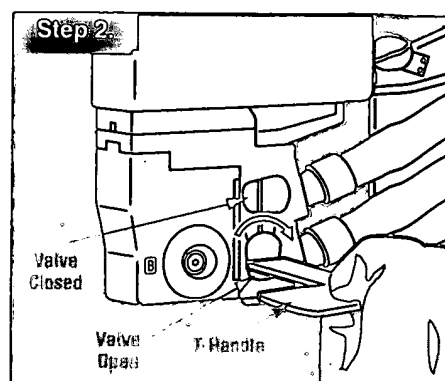
- "A" Chemical
 "B" Chemical
 Holster Solvent
 Port Cleaner
- On skin:
 Wash with soap and water.
- In eyes:
 Flush with large amounts of water and see physician.

- If problems occur during or persist after performing this procedure call your Sealed Air® Account Representative or telephone for service assistance: **1-800-243-1102 (U. S. and Canada only).**

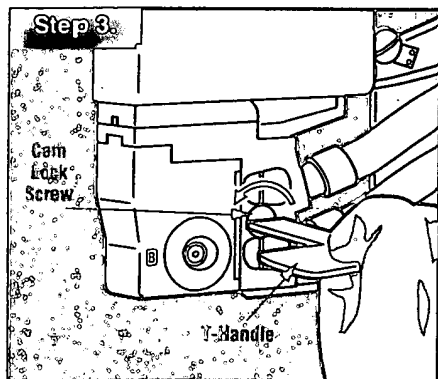
Attachment A



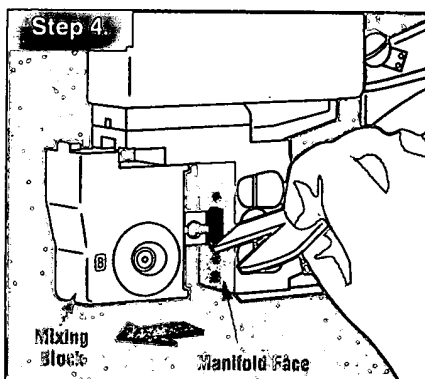
- Turn OFF the system.
- Open system cover and lock into place.
- Undo the bracket release and swing the dispenser out to cleaning position.
- Unsnap the clear protective dispenser cover and set aside for reuse.



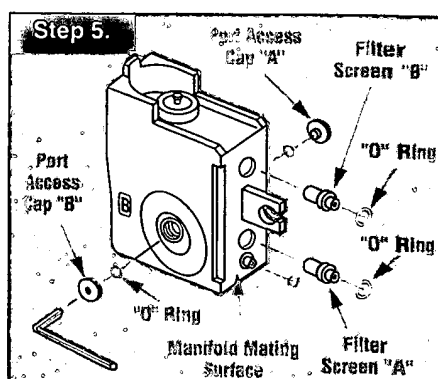
- Using the T-Handle close both (2) chemical valves.



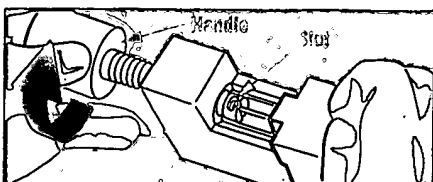
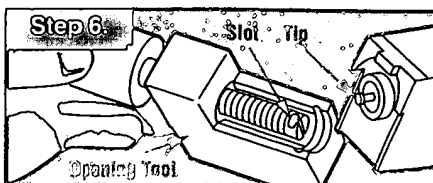
- Using the T-Handle unscrew the Cam Lock Screw until it stops (a retaining ring should prevent removal of this screw from the dispenser).



- Using the T-Handle pry the Mixing Block away from the manifold.
- Flush the manifold face with Instapak® Port Cleaner.
- Remove any remaining material from the manifold face (this area must be clean to ensure a leak-free fit during reassembly).

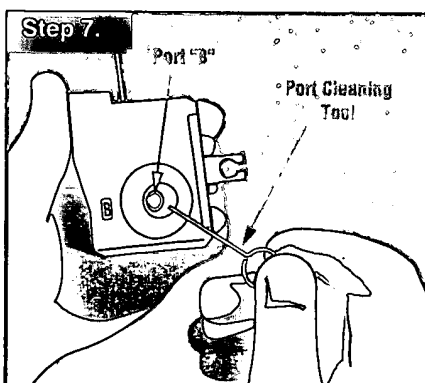


- Flush the face of the Mixing Block with Instapak® Port Cleaner.
- Remove any remaining material from the manifold mating surface (this area must be clean to ensure a leak-free fit during reassembly).
- Remove the filter screens and "O" Rings and discard (reuse will require flushing with Instapak® Port Cleaner and reinstalling into the same filter cavity).
- Using a 1/8" Allen wrench, remove the Port Access Caps and "O" Rings and clean with Instapak® Port Cleaner. After removal, verify that the "O" Ring seat areas are free of debris.
- Flush all internal passages of Mixing Block with Instapak® Port Cleaner.

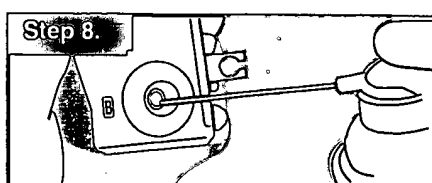


- Place Mixing Block into the Opening Tool (align the tip of the rod with the slot in the tool and the retaining ring with the groove).
- Rotate the handle on the Opening Tool to open the Mixing Block.
- Remove the Mixing Block from the Opening Tool (this may require a slight rotation of the handle to allow the tip to clear the slot).

⚠ Warning: The Mixing Block should not be left open for an extended period of time.



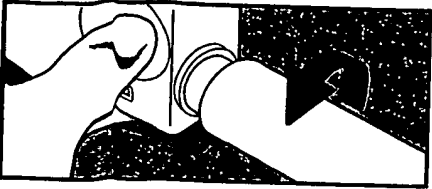
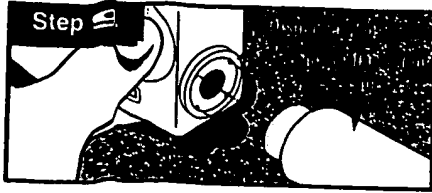
- Remove any debris from each port by inserting the Instapak® Port Cleaning Tool completely through each port.
- Clear the additional chemical passages using the larger Drill Bit Cleaning Tool.



- Flush all internal passages of the Mixing Block with Instapak® Port Cleaner. Solvent should flow freely through the opening in the end of the Mixing Block.
- Repeat steps 7 and 8 until the chemical passages of the Mixing Block are completely clean.

⚠ Note: Replace Mixing Block if cleaning is not possible.

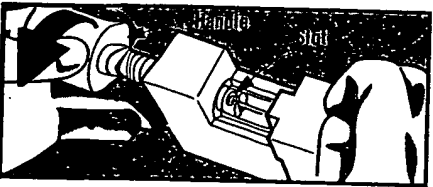
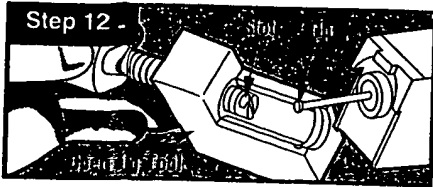
SpeedyPacker™ Mixing Block Maintenance Procedure



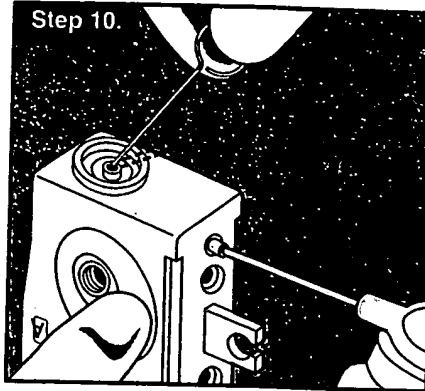
- Align the Tip Replacement Tool with the replaceable Tip and rotate to remove.

△ Note: For Tip replacement only, follow step 9, removing any debris visible behind the tip, and then go to step 11.

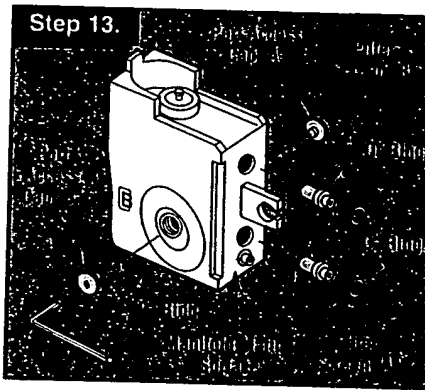
△ Note: Stained Tips should not be cleaned by scraping with any instrument. If debris can not be removed easily, replacement is recommended.



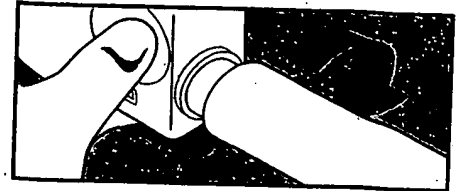
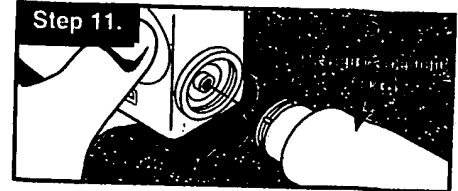
- Place Mixing Block into the Opening Tool (align the tip of the rod with the slot in the tool and the retaining ring with the groove).
- Rotate the handle on the Opening Tool to close the Mixing Block.
- Remove the Mixing Block from the Opening Tool (this may require a slight rotation of the handle to allow the tip to clear the slot).



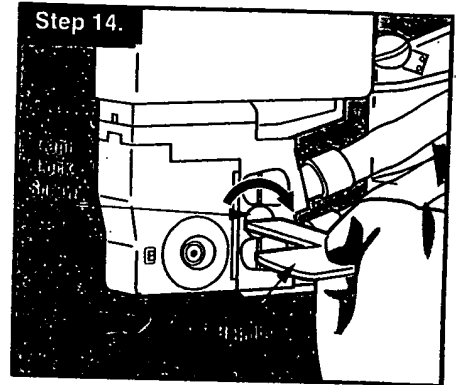
- Remove any debris from the internal tip area and the solvent passage.
- Flush the solvent passage of the Mixing Block with Instapak® Port Cleaner. Solvent should flow freely through the opening in the end of the Mixing Block.



- Using a 1/8" Allen wrench, reinstall the Port Access Caps and their respective "O" Rings in the proper locations.
- Ensure that the Mixing Block Manifold Mating Surface including the three (3) "O" Ring Grooves are clean (this area must be clean to ensure a leak-free fit during reassembly).
- Install a new solvent "O" Ring onto the solvent passage tube.
- Install two (2) new Filter Screens and their respective "O" Rings in the proper locations.



- Using the Tip Replacement Tool, install a new Tip onto the Mixing Block.



- Visually verify the presence of the three (3) "O" Rings on the Mixing Block Manifold Mating Surface.
- Slide the Mixing Block onto the dispenser manifold and secure by tightening the Cam-Lock Screw using the "T" Handle.
- Visually check to see that the Mixing Block is flush with the manifold.
- Open the two (2) chemical valves one at a time and check for leaks (refer to step 2 for valve positions).
- Reinstall the clear protective dispenser cover.
- Swing the dispenser into dispensing position and tighten the Bracket Release Screw.
- Replace the film around the dispenser.
- Close the system cover.
- Turn ON the system.

Attachment A



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